

REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office action, and amended as necessary to more clearly and particularly describe the subject matter which applicant regards as the invention.

Claims 1 – 4 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 2,796,201 to Dooley, Jr. (hereinafter, "Dooley"). The rejections are traversed for the following reasons.

Initially, it is noted that claim 1 has been amended so as to incorporate the features defined in claim 3, and claims 3 and 4 have been cancelled. As amended, the invention defined in claim 1 is directed to a sealer gun having a trigger, a needle valve, a valve seat, and a controlling member. Operation of the trigger moves the needle valve backward so as to form a gap between the valve seat and the needle valve, such that a sealer is spouted from the gap. A tapered portion having a tapered end and a ball portion at a back of the tapered portion is provided at a tip of the needle valve. The ball portion is either brought into contact with or separated from the valve seat.

The controlling member is adapted to control the moving-backward stroke of the needle valve so as to limit a maximum size of the gap formed between the valve seat and the needle valve. So as to be responsive to variable amounts of required sealer, the controlling member is operable to change the maximum size of the gap between the valve seat and the needle valve, thereby selectively allowing more or less sealer to spout from the gap.

Dooley teaches a powder or liquid dispensing apparatus. The apparatus of Dooley has a cylindrical receptacle (10) that is downwardly tapered to a discharge orifice (11). The discharge orifice is selectively closed and opened by a ball (15) having a diameter that is slightly larger than that of the discharge orifice. The ball (15) is attached to an operating rod (14) so as to be spring biased toward the discharge orifice. A hand lever (21) is attached to an end of the operating rod (14) remote from the ball (15) and is pivotally attached to the receptacle (10). When the lever (21) is operated (pushed), the operating rod (14) is moved upward, thereby removing the ball (15) from the discharge orifice and allowing powder/liquid to be dispensed from the discharge opening. In an alternative embodiment illustrated in Figs. 4 and 5 of Dooley, a tapered end portion is attached to the ball (15).

With specific reference to the operation of the lever (21) and the operating rod (14) shown in the embodiment of Fig. 1 of Dooley, the upward motion of the operating rod (14) is limited by a stationary lid (30) attached to the top of the receptacle (10). Alternatively, the upward motion of the operating rod (14) can be limited by a collar (17) affixed to the operating rod (14) abutting a stationary bracket (12), wherein a biasing spring (16) is disposed between the collar (17) and the bracket (12). With reference to alternative embodiment shown in Fig. 4, the upward motion of the operating rod (45) is limited only by the interaction of a pin (50) affixed to the operating rod (45), a spring (47), and a stationary bracket (49).

As a whole, the Dooley apparatus only teaches members and mechanisms for limiting the upward motion of the operating rod, and thereby the size of a gap between the ball and the discharge orifice, that are stationary. In this regard, the lid and the brackets are mounted to the receptacle so as to be stationary. Accordingly,

to the extent that Dooley teaches an apparatus that can limit the upward motion of the operating rod and the size of the gap between the ball and the discharge orifice, the limitation is a preset limitation that cannot be changed.

As mentioned above, the controlling member defined in claim 1 is operable to change the maximum size of the gap between the valve seat and the needle valve. According to this feature of claim 1, the sealer gun can change the maximum amount of sealer spouted from the gap by changing the maximum size of the gap in a regulated manner. In contrast thereto, the only mechanisms for controlling the maximum gap size in Dooley are stationary, so as to provide an unchangeable maximum gap.

Thus, Dooley fails to teach a controlling member that "is adapted to control the moving-backward stroke of the needle valve so as to limit a maximum size of the gap formed between the valve seat and the needle valve, wherein the controlling member is operable to change the maximum size of the gap" (emphasis added), as required by claim 1. Accordingly, the Dooley patent does not anticipate claim 1. Reconsideration and withdrawal of the rejection of claim 1 is requested. Further, claim 2 depends from claim 1 and is therefore also considered to be allowable over the art.

With further reference to claim 2, the invention defined therein depends from claim 1 and further includes an orifice member for reducing an area of flow provided in a sealer passage downstream from the valve seat. As such, in addition to the gap formed between the valve seat and the needle valve, the sealer gun of claim 2 also provides an orifice member that is disposed downstream from the valve seat.

With reference to the Dooley patent, assuming the frustoconical walls near

the discharge opening correspond to the claimed valve seat, it is noted that there is no additional discharge orifice disposed downstream from the frustoconical walls and the discharge opening. Rather, the only member disclosed as being downstream of the frustoconical walls defining the discharge opening is a downwardly extending stem (51) that is operable to facilitate a user in moving the spherical head (46) upwards. The stem (51) does not define an opening, and therefore cannot be considered an orifice.

Thus, Dooley fails to teach "an orifice member for reducing an area of flow provided in a sealer passage downstream of the valve seat", as required by claim 2. Accordingly, notwithstanding the patentability of claim 1, claim 2 is independently allowable over the cited art.

Additionally, new claims 5 – 9 have been added for consideration in the present amendment.

Claim 5 defines a biasing member that biases the ball portion provided at the back of the tapered portion of the needle valve into contact with the valve seat. Claim 6 further defines the cooperation of the needle valve and the trigger. Claim 7 further defines the controlling member as a stopper. Claim 8 defines the elements comprising the controlling member and allowing the controlling member to operate as a stopper. Claim 9 defines a mechanism for setting predetermined stopper positions. Initially, the new claims are considered allowable over the art based on their dependence from allowable claim 1. Further, notwithstanding the patentability of claim 1, claims 5 – 9 are considered independently considered allowable over the art as the new claims further define features that the cited art fails to teach. Favorable consideration of the new claims is requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. KOY-16761.

Respectfully submitted,

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